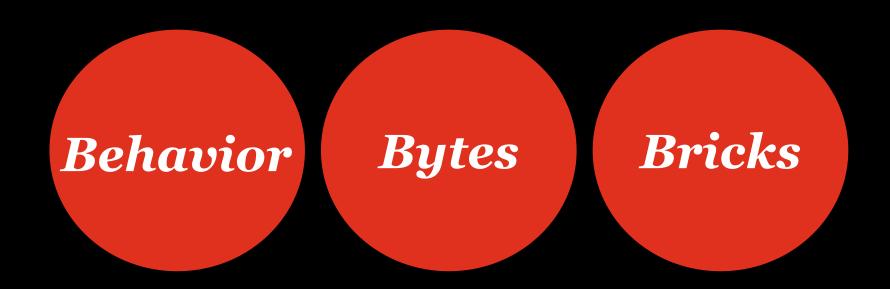
NEXT20 **Behavior**, **Bytes & Bricks**How the Future of Logistics & Retail will chance





Drivers of the industry



The future is no longer simply an extension of the present

Digital natives



"When you speak to one of us, you're speaking to thousands of us"



"When I visit a store, I want to feel as if I am walking into a website"



"My favorite search engine is YouTube"



"I want digital convenience at work as well"





ARE CONNECTED AND ALWAYS ON



WANT DIGITAL AND PHYSICAL BLURRED

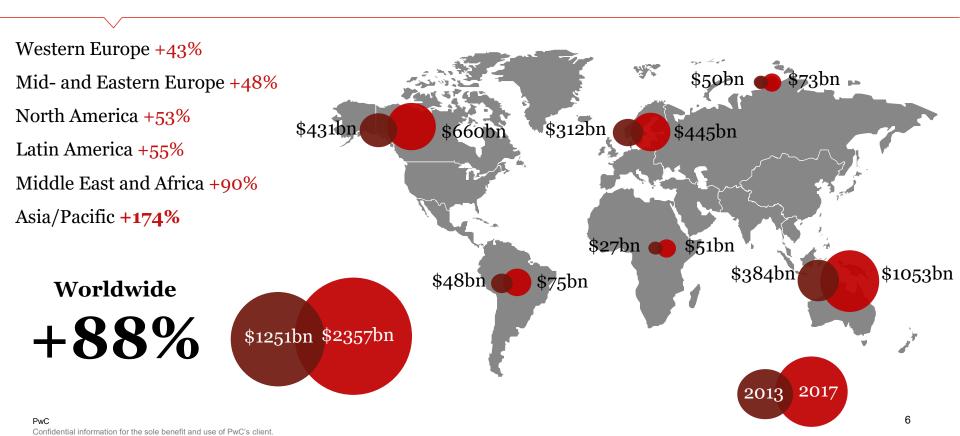


LIKE ALL THINGS VISUAL, TACTILE AND INTERACTIVE



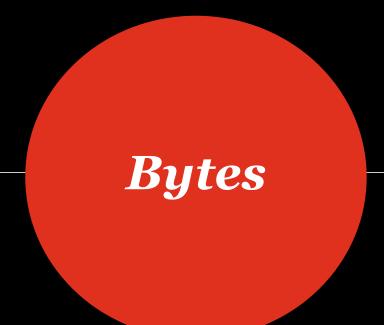
EXPECT THE SAME AT WORK THAN IN THEIR PRIVATE LIFE

Global growth of e-commerce — Changes in logistics



2

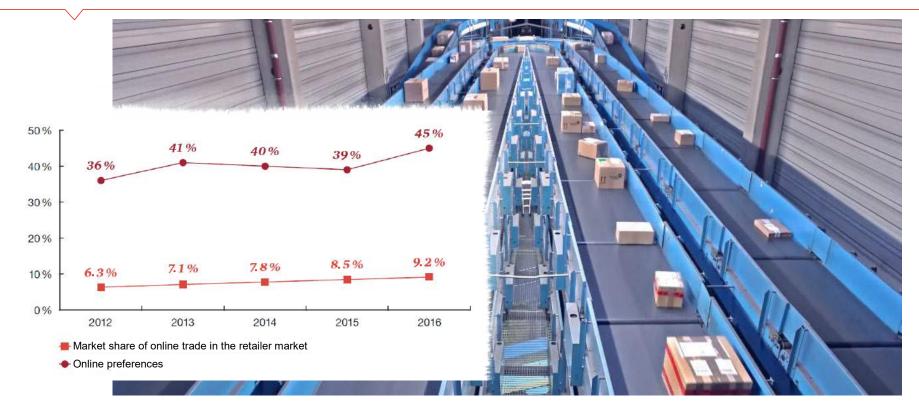
Key drivers for logistic & retail







Parcel overload – The potential market share of online trading is almost five times higher than the current market share



Traffic congestion – Freight traffic represents 20 to 30% of the city traffic, but causes at peak times about 80% of the traffic jams



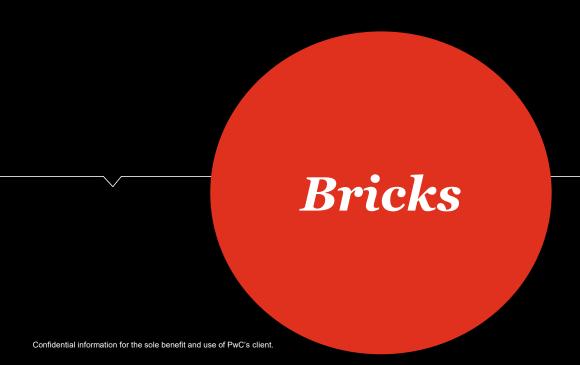
Challenges for urban and infrastructure development

Crowd Logistics / Sharing Economy – Delivery of goods to the customer by private individuals



Confidential information for the sole benefit and use of PwC's client

Market overview: real estate markets



Logistics vs. Retail

Logistics real estate benefits from the growth of e-commerce.

But how does that effect retail properties?

Retail market development 2018

We see that only the best located high-street properties in the strongest markets remain stable.

Core+ and value-add properties show increasing yields, thus a **decline of value**. **Comparison** to retail properties S.-Holstein & Low. Saxony MV. & Sax.-A. & Brandenburg O Hanover O Magdeburg Düsseldorf 5 Dresden 🗾 North Rhine-O Cologne 5 Westphalia North of Hesse 8 Nurembera Rhineland-P. & Saarland () Karisruhe O Stuttgart Bavaria 🗔 Munich 5 South of Hesse & BaWue

Source: PwC Real Estate Investor Survey

Forecast – Yields for all kinds of retail properties are expected to increase in the next 5 years which means prices will probably drop down

High street retail



Non high street retail



Thesis: Logistics properties will partly replace retail in the future



A new asset class with high potential

Market Update

Emerging Trends in Real Estate Europe 2019

Creating an impact

Join the conversation: #ETRE19









Upwards – The German market for logistics properties has developed significantly over the past few years

Prime yield



4,5% All-time low

Transaction volume



7,8 Mrd. €

Logistics share of commercial property market



15%

Third popular commercial asset class

Rising demand for logistics properties and limited supply of space are leading to rising prices and falling yields.

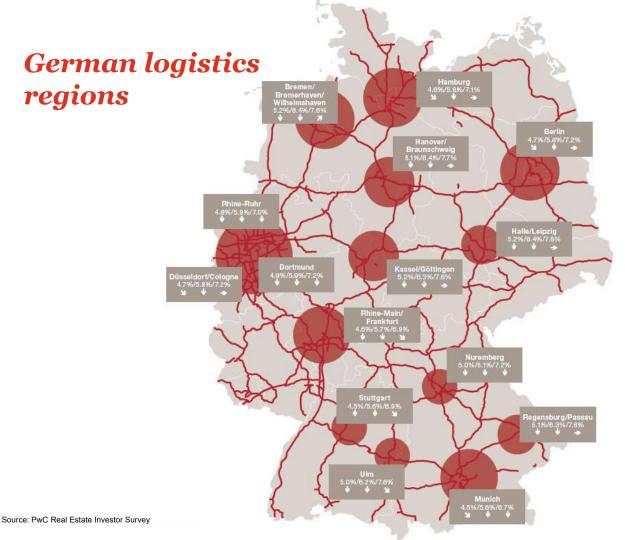
Since 2012, the logistics real estate sector has been growing at an annual rate of 5.2%

Logistics are more popular than ever for investors

Rising **demand** in metropol regions

Increasing investments in smaller locations

New locations for logistics properties are emerging



More Deals – Increasing volume of transactions in the German logistics sector

2010				2017		
No.	Name	Purchase Price (in €m)	No.	Name	Purchase Price (in €m)	
1	Bavaria-Portfolio	150	1	Logicor-Portfolio	2,200	
2	Esprit Distribution Center	65	2	Hansteen-Portfolio	975	
3	Rösrather Furniture Center	55	3	IDI-Gazeley-Portfolio	800	
4	OD Distributionscenter	34	4	Gramercy Portfolio	465	
5	PCC Daimler Plant Center	34	5	Frasers Geneba	430	
6	Garbe logistic object	30	6	Frasers Bluefield-Portfolio	257	
7	Air Cargo Center	20	7	Azurite-Portfolio	250	
8	WEG logistic center	11	8	10 DHL-Delivery Bases	128	
9	DHL-Campus	8	9	Amazon Logistic Center	121	
10	Area Köln Ehrenfeld	6	10	Palmira	100	
Summe		413	Summe		5,726	

2010

Down to earth – The German market for retail properties is the flip side of the e-commerce-driven boom in logistic



"The biggest dilemma for everyone in the retail space is, you've got to spend to stand still, and that's not a natural state of mind for a lot of property investors. But if you don't spend, the outlook is pretty grim."

"People are underestimating how much online and e-commerce is impacting retail. I think it will be really quite bad. What we're now looking to do is buy existing retail product, B and C quality shopping centres, and make a return by tearing them down and building new leisure, residential and logistics space on them."

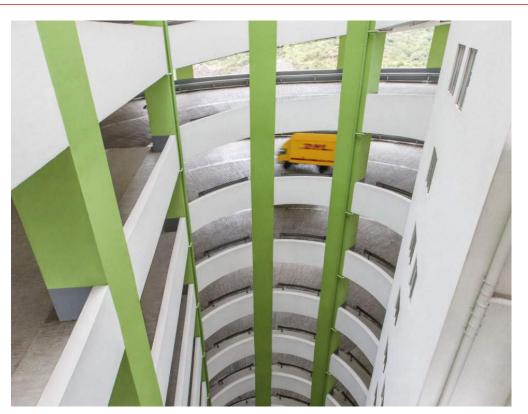
PWC 22

Future Developments

What is next?

What's the limit? - DHL MegaHub with 23-floors, c. 85,000 sqm lettable area and a 15-storey ramp for trucks in Hong Kong.





PwC

This is no car park - Multistorey logitics properties get more and more popular in major cities around the world

Example Osaka (Japan)

Especially in major Asian cities multilevel logistics buildings are state of the art.



Europe is laging behind - German state of the art is Amazon's new citylogistics centre in Munich. Quite a difference to Hong Kong and Osaka...

In Europe, vertical solutions are still rare

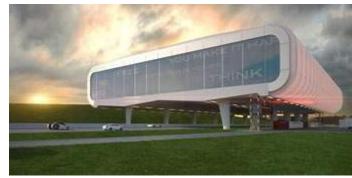
Two multi-storey logistics buildings in Paris and one in Munich.

U.K. offers one multi-storey warehouse at Heathrow. The development of a three-storey warehouse in London has started.



TodayTwo storey city logistics
property in Munich of AMAZON

Tomorrow!?



100 Mio €

Where to invest?

Experienced. Global. Connected.

PwC's Real Estate Network

Susanne Eickermann-Riepe, FRICS

Head of German Real Estate, Partner, PwC Member of Global & EMEA Leadership Team **Board Member at RICS Germany** Board Member at ICG Germany



has over 5.000 real estate specialists... le al Estate Leader Kinga Barchon KwokKau(KK)So Real Estate Leader Alvaro Taiar atin & South

With offices in 158 countries, our global network

...ready to offer you with end-to-end support for your real estate opportunities



Strategy, Mgmt and Operations

PwC advises investors, fund managers, corporates, property companies, real estate portfolio managers and the public sector.



PwC offers businesses tailor-made concepts for transactions. Our specialists are there to support you during transactions and ensure all processes are transparent

Valuation

Interdisciplinary PwC teams are on hand to determine real estate values and draw up value management systems and valuation processes, giving their support to organizations on all real estate issues

Development & Risk Analysis

Whether it's a question of optimizing your property portfolio, building new production or administration blocks or finding a new location, PwC can advise you on all the economic and technical issues.



Real Estate Funds

We offer comprehensive solutions on a global level and comprehensive expertise in all alternative asset classes such as Real Estate, infrastructure and private equity.



Debt Advisory & Loan Deals

PwC can help lever value into financing and in this way increase the success of your company. We respond to unique project and customer requirements with specific project team selection & tailor-made solutions.

PwC's global real estate tax teams work closely across the network to support our clients navigate the

regulatoryand reputational issues associated with tax while seeking efficiency for our clients.

Real Estate Law (PwC Legal) PwC Legal can help you in all legal areas concerning



real estate, especially in transactions, real estate development tenancy and construction law as well as

With a long history and unparalleled experience, PwC's audit teams possess competency, integrity and industry expertise. They draw on an international real estate network but still ensure that clients' needs are addressed on an individual and local approach

Thank You.